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Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 6331534 B1

Using default format because multiple data bases are involved.

L8: Entry 1 of 6

File: USPT

Dec 18, 2001

US-PAT-NO: 6331534

DOCUMENT-IDENTIFIER: US 6331534 B1

** See image for Certificate of Correction **

TITLE: Steroids as neurochemical stimulators of the VNO to alleviate pain

DATE-ISSUED: December 18, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Berliner; David L.

San Mateo County

CA

COONIKI

Monti-Bloch; Luis

Salt Lake City

UT

US-CL-CURRENT: <u>514/177</u>

Full Title Citation Front Review Classification Date Reference Communication Communica

☐ 2. Document ID: US 6117860 A

L8: Entry 2 of 6

File: USPT

Sep 12, 2000

US-PAT-NO: 6117860

DOCUMENT-IDENTIFIER: US 6117860 A

TITLE: Steroids as neurochemical stimulators of the VNO to treat paroxistic

tachycardia

Full Title Citation Front Review Classification Crate Reference

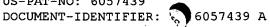
☐ 3. Document ID: US 6057439 A

L8: Entry 3 of 6

File: USPT

May 2, 2000

US-PAT-NO: 6057439



TITLE: Steroids as neurochemical stimulators of the VNO to alleviate symptoms of

PMS and anxiety

Full Title Citation Front Review Classification Cate Reference (1985) (1985) Claims (1990) Draw (1985)

☑ 4. Document ID: US 5339821 A

L8: Entry 4 of 6

File: USPT

Aug 23, 1994

US-PAT-NO: 5339821

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

☐ 5. Document ID: US 4803625 A

L8: Entry 5 of 6

File: USPT

Feb 7, 1989

US-PAT-NO: 4803625

DOCUMENT-IDENTIFIER: US 4803625 A

** See image for Certificate of Correction **

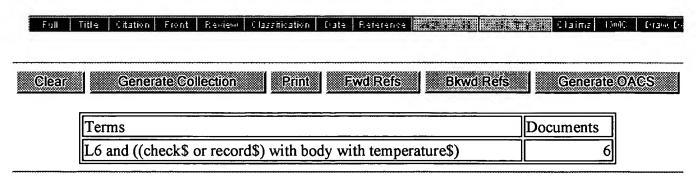
TITLE: Personal health monitor

Full Title Citation Front Review Classification Date Reference ☐ 6. Document ID: US 4539994 A L8: Entry 6 of 6 File: USPT Sep 10, 1985

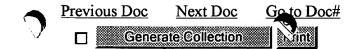
US-PAT-NO: 4539994

DOCUMENT-IDENTIFIER: US 4539994 A

TITLE: Method for transcutaneous measurement of a blood parameter and an electrochemical measuring electrode device for carrying out the method



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L8: Entry 4 of 6 File: USPT Aug 23, 1994

US-PAT-NO: 5339821

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

DATE-ISSUED: August 23, 1994

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Tokyo JΡ Fujimoto; Jun

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Seta Co., Ltd. Tokyo JΡ 03 NASA Corporation Co., Ltd. Tokyo JΡ 03

APPL-NO: 07/ 966726 [PALM] DATE FILED: October 26, 1992

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO APPL-DATE

JΡ 4-059477 February 13, 1992

Search Selected

INT-CL: [05] A61N 5/04

US-CL-ISSUED: 128/700; 128/903, 128/904 US-CL-CURRENT: 600/513; 128/903, 128/904

FIELD-OF-SEARCH: 128/670, 128/671, 128/696, 128/700, 128/903, 128/904, 128/906,

128/908

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search ALL

Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<u>3566365</u>	February 1971	Ranson et al.	128/906
3566370	February 1971	Worthington et al.	128/904
3920005	November 1975	Gombrich et al.	128/904
4449536	May 1984	Weaver	128/696

<u>4566461</u>	January 1986	Lubell et al.	128/700
4722349	February 1988	Baumberg	128/904
4782511	November 1988	Nemec et al.	128/904
4803625	February 1989	Fu et al.	128/908
4838275	June 1989	Lee	128/904

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO

PUBN-DATE

COUNTRY

US-CL

0286456

October 1988

EΡ

128/904

ART-UNIT: 335

PRIMARY-EXAMINER: Kamm; William E.

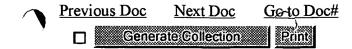
ATTY-AGENT-FIRM: Notaro & Michalos

ABSTRACT:

A home medical system allows any patient or healthy person to measure his or her daily condition at home and undergo a check or an inquiry diagnosis by a medical specialist or doctor. The home medical system includes equipment for measuring the electrocardiogram and other heart conditions of a user, a display for explaining the procedure and a display for displaying thereon a result of a measurement by the equipment. A communication link connects the user's equipment to a medical institution for interconnecting the medical institution to the user's system so that medical personal at the medical institution can also review the measured results obtained by the user.

9 Claims, 6 Drawing figures

First Hit Fwd Refs



L8: Entry 4 of 6 File: USPT Aug 23, 1994

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

Abstract Text (1):

A home medical system allows any <u>patient</u> or healthy person to measure his or her daily condition at home and undergo a check or an inquiry diagnosis by a medical specialist or doctor. The home medical system includes equipment for measuring the electrocardiogram and other heart conditions of a user, a display for explaining the procedure and a display for displaying thereon a result of a measurement by the equipment. A communication link connects the user's equipment to a medical institution for interconnecting the medical institution to the user's system so that medical personal at the medical institution can also review the measured results obtained by the user.

<u>Application Filing Date</u> (1): 19921026

Brief Summary Text (3):

This invention relates to a home medical system and a medical apparatus for use therewith which are suitably applied when a common user who may be a <u>patient</u> having some disease effects management of the condition of the disease or health care at home.

Brief Summary Text (6):

However, the variations of the blood pressure, for example, of a hypertension patient within a day and among days are very important problems. Particularly, the danger is pointed out that an excessive pressure reduction while hypertensive drugs are taken will reduce blood flow to the brain and the heart of an old hypertensive patient or a hypertension patient having a case history of cerebral infarction to cause an ischemic heart failure. Some person may, when the blood pressure is measured in front of a doctor, be strained and this can cause a rise of the blood pressure (so-called white robe hypertension) so that it is difficult to accurately grasp the original condition of the patient. Accordingly, it is very important to a hypertensive patient to observe the variation of the blood pressure in an ordinary condition at home over a long period of time.

Brief Summary Text (7):

Further, while it is recommended that a <u>patient</u> who has had a heart failure and has received an internal pace maker, measure his or her own pulse as a daily check in order to find out a pacing failure or a <u>sensing</u> failure of the internal pace maker, it is very difficult to grasp how may <u>patients</u> actually carry out the procedure every day. Accordingly, it is particularly useful to a pace maker embedded <u>patient</u> who works lively without having a particular complication that, if the <u>patient</u> makes use of a home medical system according to the present invention, a doctor can check an electrocardiogram monitor while the <u>patient</u> need not intentionally visit the hospital.

Brief Summary Text (8):

Similarly, it is an earnest desire to <u>patients</u> of ischemic heart diseases, <u>patients</u> of a heart failure, antiarrhythmic <u>patients</u>, <u>patients</u> of respiratory insufficiency,

patients to whom the CAPD (continuous ambulatory peritoneal dialysis) has been performed and so forth that a patient can check the daily condition of its disease every day at home and a doctor can check the blood pressure and the electrocardiogram monitor so that the patient may live at rest every day.

Brief Summary Text (11):

It Is an object of the present invention to provide a home medical system and a medical apparatus for use with the home medical system by which a <u>patient</u> having a various disease or a healthy person can measure the daily condition of the disease or the condition of health at home to undergo a check or an inquiry diagnosis by a medical specialist and which are easy to operate, high in reliability and low in expense.

Detailed Description Text (35):

Subsequently, inputting of data of the <u>body temperature</u> proceeds in the following manner.

Detailed Description Text (36):

(1) The medical terminal equipment 1 gives a <u>question</u> "do you want to <u>record the</u> <u>body temperature</u>?" by way of the screen display of the liquid crystal display unit 14 and sound of the loudspeaker 13.

Detailed Description Text (37):

(2) The user will reply to the question by operation of the operation button 15 or 16 for "Yes" or "No". When the reply is "No", the <u>body temperature is not recorded</u>. On the contrary, when the reply is "Yes", <u>recording of the body temperature</u> is started.

Detailed Description Text (38):

(3) The user will measure the <u>body temperature</u> by means of a clinical thermometer prepared by the user. Or else, the <u>body temperature</u> may have been measured in advance.

Detailed Description Text (39):

(4) <u>Body temperature</u> values from 35 to 45 degrees are displayed on the display screen, and also a cursor is displayed on the display screen. Depression of the operation button 15 or 16 for "Yes" or "No" moves the cursor in a direction in which the temperature value indicated by the cursor increases or decreases. The user will thus adjust the cursor to a <u>body temperature</u> value detected by the measurement by itself and depress the operation button 17 for "selection".

<u>Detailed Description Text</u> (40):

(5) The medical terminal equipment 1 gives a question "do you want to store the data?" by way of the screen display and sound. If the operation button 16 for "No" is depressed, the control sequence returns to the step (1) without storing the body temperature data. On the contrary, if the operation button 15 for "Yes", then the body temperature data is stored into the memory 33, thereby completing the body temperature data inputting procedure.

<u>Detailed Description Text</u> (42):

(1) The medical terminal equipment 1 gives a <u>question</u> "do you want to <u>record</u> the weight?" to the user by way of the screen display and sound.

Detailed Description Text (48):

Data transmitted from the user side communication apparatus 7 are set to the medical institution side communication apparatus 3 by means of a telephone line, a CATV line or a radio channel and stored into a hard disk or an opto-magnetic disk of the host computer 5 on the medical institution side. Then, the data are displayed immediately in accordance with the necessity. The host computer 5 on the medical institution side can naturally collect and store data for several hundreds

to several thousands people using the external storage apparatus 7, automatically diagnose the collection data and transmit the result of the diagnosis to the user side, and pick up those data for which a diagnosis of a doctor is considered necessary and urge a diagnosis of a doctor. In addition, the host computer 5 can print the result of the diagnosis of the doctor together with data for the last one month by means of the printer 6 so that the data thus printed out may be delivered to the user. The automatic diagnosis of the host computer 5 involves, for example, checking of the pattern of the electrocardiographic waveform for the last one month to judge whether or not it has a significant variation or some abnormality, and if some abnormal condition is detected, a warning is issued. Further, the host computer 5 can provide a display of a variation graph of the blood pressure, the pulse, the body temperature, the weight and so forth for the last one month, compare the data with national average values of the sex and the age and give a notice of the result of the automatic diagnosis like, for example, "You are overweight: how about getting thin ?" or "Your blood pressure is excessively high: take care so as not to take too much salt.

CLAIMS:

- 4. A medical system according to claim 1, including input means operably connected to said home central processing unit for use by the user to input body temperature and a weight of the user as part of the answer to the questions posed to the user by the explaining means.
- 7. A medical apparatus, comprising:
- a medical terminal equipment for a patient; and

patient side communication means;

said medical terminal equipment including an arm band for measuring a blood pressure and a pulse of the <u>patient</u>, a pair of measuring electrodes for measuring an electrocardiogram of the <u>patient</u>, explaining means for explaining a procedure and a method of a measurement by said arm band and said measuring electrodes and for displaying on-line and preselected questions to the user, operation buttons for imputing a result of the measurement and answering to a question from a medical institution, display means for displaying thereon a result of the measurement by said measuring electrodes, for displaying the data, and for displaying the questions for diagnosis inquiry from the medical institution, a memory for storing therein the result of the measurement by said arm band and said measuring electrodes, the data, the questions for diagnosis inquiry, and answers to the questions, and a central processing unit for controlling said medical terminal apparatus; and

said <u>patient</u> communication means including a power source circuit and a communication unit for transmitting and receiving the result of the measurement, the data, the question for diagnosis inquiry and the answers to the questions, as well as on-line questions from the medical institution, the <u>patient</u> communication means also operating to transmit to the medical institution a mixture of answers to the on-line and preselected questions.

8. A medical apparatus according to claim 7, wherein said medical terminal equipment and said <u>patient</u> side communication means are removably coupled to each other, and said medical terminal equipment further includes a built-in battery.

First Hit Fwd Refs End of Result Set

Next Doc

Go-to Doc#

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L10: Entry 1 of 1

File: USPT

Aug 23, 1994

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

Drawing Description Text (6):

FIG. 5 is a flow chart illustrating a procedure of operation of the medical apparatus according to the present invention; and

Drawing Description Text (7):

FIG. 6 is a flow <u>chart</u> illustrating another procedure of operation of the medical apparatus according to the present invention.

Detailed Description Text (47):

The medical apparatus 8 according to the present invention allows storage of data of a plurality of users into the memory 33 and also has a function of <u>outputting</u>, by accessing to it from the medical institution side, the stored data from the memory 33 making use of a CATV line, a telephone line or the like. When the medical apparatus 8 is to be used commonly by a plurality of users, identification information of entry numbers of the users must be inputted in advance. The inputting operation may involve displaying the identification information on the liquid crystal display unit 14 of the display means and depression of the operation button or buttons 15 or/and 16 for "Yes" and "No". The transmission of the data may be performed by accessing of the user side to the medical institution side or may be performed by accessing of the medical institution side so that the medical institution receives data stored in the user side communication apparatus 2. The number of times of measurement and inputting of various data within a day can be selected arbitrarily in accordance with an instruction of the medical institution.

First Hit Fwd Refs End of Result Set

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L11: Entry 1 of 1 File: USPT Aug 23, 1994

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

Abstract Text (1):

A home medical system allows any patient or healthy person to measure his or her daily condition at home and undergo a check or an inquiry diagnosis by a medical specialist or doctor. The home medical system includes equipment for measuring the electrocardiogram and other heart conditions of a user, a display for explaining the procedure and a display for displaying thereon a <u>result</u> of a measurement by the equipment. A communication link connects the user's equipment to a medical institution for interconnecting the medical institution to the user's system so that medical personal at the medical institution can also review the measured <u>results</u> obtained by the user.

Drawing Description Text (6):

FIG. 5 is a flow <u>chart</u> illustrating a procedure of operation of the medical apparatus according to the present invention; and

Drawing Description Text (7):

FIG. 6 is a flow <u>chart</u> illustrating another procedure of operation of the medical apparatus according to the present invention.

Detailed Description Text (15):

(7) The <u>result</u> of the measurement is displayed in the following manner on the screen of the liquid crystal display unit 14. ##STR1##

Detailed Description Text (25):

(6) A measurement of an electrocardiogram is started. When the user wants to interrupt the measurement, the operation button 17 for "selection" will be depressed. As a result, the measurement is stopped immediately, and the control sequence returns to the step (1) above.

Detailed Description Text (30):

Minimum necessary questions for diagnosis inquiry are stored in advance in the host computer 5 and the medical terminal equipment 1, and consecutive numbers are applied in advance to the questions for diagnosis inquiry. On the medical institution side, a doctor will input the consecutive number or numbers of a question or questions for diagnosis inquiry to be asked to the user to the host computer 5, and the thus inputted number or numbers are stored into the host computer 5. After the inputting is completed, the host computer 5 transmits the inputted consecutive number or numbers of the questions for diagnosis inquiry to the medical apparatus 8 on the user side by way of the medical institution side communication apparatus 3. The medical apparatus 8 thus effects diagnosis inquiry of the received diagnosis inquiry question number or numbers to the user and transmits the result of the inquiry back to the host computer 5 by way of the user side communication apparatus 2. Since the diagnosis inquiry question number or numbers received by the medical apparatus 8 are stored in the memory 33 of the medical apparatus 8, the transmission from the host computer 5 must be performed

only once. When it is desired to change the questions for diagnosis inquiry to the user, only the diagnosis inquiry question number or numbers stored in the host computer 5 should be changed. The host computer 5 transmits the thus changed diagnosis inquiry question number or numbers to the medical apparatus 8 of the user side by way of the medical institution side communication apparatus 3. Since the questions for diagnosis inquiry can be designated for each user, diagnosis inquiry effective for the disease or the condition of a particular user can be performed. The operation is performed in the following manner.

Detailed Description Text (33):

(3) The diagnosis inquiry proceeds in such a form that the user gives a reply by manual operation of either one of the operation buttons 15 and 16 for "Yes" and "No" to the question displayed on the screen of the liquid crystal display unit 14 like, for example, "Do you have a pain in the chest ?", "Yes" or "No" or "Do you feel languid ?", "Yes" or "No". When the user wants to interrupt the diagnosis inquiry, the operation button 17 for "selection" will be depressed. As a result, the diagnosis inquiry is interrupted and the procedure returns to the step (1) above.

Detailed Description Text (47):

The medical apparatus 8 according to the present invention allows storage of data of a plurality of users into the memory 33 and also has a function of <u>outputting</u>, by accessing to it from the medical institution side, the stored data from the memory 33 making use of a CATV line, a telephone line or the like. When the medical apparatus 8 is to be used commonly by a plurality of users, identification information of entry numbers of the users must be inputted in advance. The inputting operation may involve displaying the identification information on the liquid crystal display unit 14 of the display means and depression of the operation button or buttons 15 or/and 16 for "Yes" and "No". The transmission of the data may be performed by accessing of the user side to the medical institution side or may be performed by accessing of the medical institution side so that the medical institution receives data stored in the user side communication apparatus 2. The number of times of measurement and inputting of various data within a day can be selected arbitrarily in accordance with an instruction of the medical institution.

Detailed Description Text (48):

Data transmitted from the user side communication apparatus 7 are set to the medical institution side communication apparatus 3 by means of a telephone line, a CATV line or a radio channel and stored into a hard disk or an opto-magnetic disk of the host computer 5 on the medical institution side. Then, the data are displayed immediately in accordance with the necessity. The host computer 5 on the medical institution side can naturally collect and store data for several hundreds to several thousands people using the external storage apparatus 7, automatically diagnose the collected data and transmit the result of the diagnosis to the user side, and pick up those data for which a diagnosis of a doctor is considered necessary and urge a diagnosis of a doctor. In addition, the host computer 5 can print the result of the diagnosis of the doctor together with data for the last one month by means of the printer 6 so that the data thus printed out may be delivered to the user. The automatic diagnosis of the host computer 5 involves, for example, checking of the pattern of the electrocardiographic waveform for the last one month to judge whether or not it has a significant variation or some abnormality, and if some abnormal condition is detected, a warning is issued. Further, the host computer 5 can provide a display of a variation graph of the blood pressure, the pulse, the body temperature, the weight and so forth for the last one month, compare the data with national average values of the sex and the age and give a notice of the result of the automatic diagnosis like, for example, "You are overweight: how about getting thin ?" or "Your blood pressure is excessively high: take care so as not to take too much salt.

CLAIMS:

1. A medical system frameasuring a user's blood pressure, pulse and electrocardiogram at home, and for communication between the user and a medical institution; the system comprising:

a home medical terminal for use by the user, the terminal including an arm band for measuring the user's blood pressure and pulse; a pair of measuring electrodes for measuring the user's electrocardiogram; explaining means for questioning a user with on-line and with preselected questions, and for presenting and explaining a measurement procedure to the user for use by the user to take measurements using said arm band and said measuring electrodes; a plurality of operation buttons operable by the user and operatively connected to the explaining means for inputting responses to the questions and for interacting with the explaining means to proceed through a measurement procedure; the home medical terminal also including display means for displaying a measurement by said arm band and a measurement by said electrodes, said display means also being operatively connected to said explaining means for displaying the questions and for presenting and explaining the measurement procedures; the home medical terminal further included a memory for storing the results of the measurements, and the answers to the questions; and a home central processing unit operatively connected to said display means, to said operation buttons, to said arm band, to said electrodes, to said explaining means and to said memory, for operating said arm band and electrodes to make the measurements, to operate said explaining means to question the user and present and explain measurement procedures to the user, and to receive signals from the operation buttons and to drive the display means and memory;

home communication means operatively connected to said home central processing unit for transmitting and receiving signals including the on-line questions for the user, responses to and from the user to those questions, and the measurements taken by the user;

institute communication means;

a communication line operatively connected between the home communication means and the institute communication means for transmitting and receiving signals therebetween;

a host computer operatively connected to the institution communication means and at the medical institution;

question means operatively connected to the host computer for initiating on-line and preselected questions for diagnosis inquiry to the host computer which are transmitted between the home and institution communication means over the communication line to the explaining means for providing questioning of the user; and

attachment means operatively connected to the host computer for storing and displaying information from the host computer, received through the home and institution communication means over the communication line, and including the <u>results</u> of the measurements taken by the user and stored in the memory.

7. A medical apparatus, comprising:

a medical terminal equipment for a patient; and

patient side communication means;

said medical terminal equipment including an arm band for measuring a blood pressure and a pulse of the patient, a pair of measuring electrodes for measuring an electrocardiogram of the patient, explaining means for explaining a procedure

and a method of a measurement by said arm band and said measuring electrodes and for displaying on-ling and preselected questions to the user, operation buttons for imputing a result of the measurement and answering to a question from a medical institution, display means for displaying thereon a result of the measurement by said measuring electrodes, for displaying the data, and for displaying the questions for diagnosis inquiry from the medical institution, a memory for storing therein the result of the measurement by said arm band and said measuring electrodes, the data, the questions for diagnosis inquiry, and answers to the questions, and a central processing unit for controlling said medical terminal apparatus; and

said patient communication means including a power source circuit and a communication unit for transmitting and receiving the <u>result</u> of the measurement, the data, the question for diagnosis inquiry and the answers to the questions, as well as on-line questions from the medical institution, the patient communication means also operating to transmit to the medical institution a mixture of answers to the on-line and preselected questions.

Refine Search

Search Results -

Terms	Documents
L9 and (output\$ or graphic\$ or table or chart\$ or result\$)	1

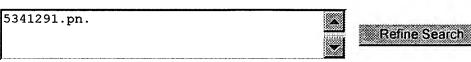
US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database
US OCR Full-Text Database

Database:

EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:









Search History

DATE: Thursday, August 11, 2005 Printable Copy Create Case

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<u>L11</u>	L9 and (output\$ or graphic\$ or table or chart\$ or result\$)	1	<u>L11</u>		
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<u>L9</u>	5339821.pn.	1	<u>L9</u>		
<u>L8</u>	L6 and ((check\$ or record\$) with body with temperature\$)	6	<u>L8</u>		
<u>L7</u>	13 and L6	0	<u>L7</u>		
<u>L6</u>	L2 and (body with temperature\$)	29	<u>L6</u>		
<u>L5</u>	L2 and (body with temp\$)	1	<u>L5</u>		
<u>L4</u>	12 and L3	2	<u>L4</u>		
<u>L3</u>	705/7-9.ccls.	3205	<u>L3</u>		
<u>L2</u>	patient and (eye or observ\$ or sens\$ or watch\$) and (question\$ with record\$) and @ad<=19980725	290	<u>L2</u>		
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END OF SEARCH HISTORY

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Previous Doc Next Doc Go to Doc#

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L2: Entry 1 of 1

File: USPT

Aug 23, 1994

US-PAT-NO: <u>533982</u>1

DOCUMENT-IDENTIFIER: US 5339821 A

TITLE: Home medical system and medical apparatus for use therewith

DATE-ISSUED: August 23, 1994

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Fujimoto; Jun

Tokyo

JP

ASSIGNEE-INFORMATION:

NAME

CITY STATE ZIP CODE

COUNTRY

TYPE CODE

Seta Co., Ltd.

Tokyo Tokyo

JΡ JΡ 03 03

NASA Corporation Co., Ltd.

APPL-NO: 07/ 966726 [PALM]

DATE FILED: October 26, 1992

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY

APPL-NO

APPL-DATE

JΡ

4-059477

February 13, 1992

INT-CL: [05] A61N 5/04

US-CL-ISSUED: 128/700; 128/903, 128/904 US-CL-CURRENT: 600/513; 128/903, 128/904

FIELD-OF-SEARCH: 128/670, 128/671, 128/696, 128/700, 128/903, 128/904, 128/906,

128/908

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected	Search ALL	Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3566365	February 1971	Ranson et al.	128/906
3566370	February 1971	Worthington et al.	128/904
3920005	November 1975	Gombrich et al.	128/904

4449536	May 1984	Weaver	128/696
4566461	January 1986	Lubell et al.	128/700
4722349	February 1988	Baumberg	128/904
4782511	November 1988	Nemec et al.	128/904
<u>4803625</u>	February 1989	Fu et al.	128/908
4838275	June 1989	Lee	128/904

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO 0286456

PUBN-DATE October 1988 COUNTRY

EΡ

US-CL 128/904

ART-UNIT: 335

PRIMARY-EXAMINER: Kamm; William E.

ATTY-AGENT-FIRM: Notaro & Michalos

ABSTRACT:

A home medical system allows any patient or healthy person to measure his or her daily condition at home and undergo a check or an inquiry diagnosis by a medical specialist or doctor. The home medical system includes equipment for measuring the electrocardiogram and other heart conditions of a user, a display for explaining the procedure and a display for displaying thereon a result of a measurement by the equipment. A communication link connects the user's equipment to a medical institution for interconnecting the medical institution to the user's system so that medical personal at the medical institution can also review the measured results obtained by the user.

9 Claims, 6 Drawing figures

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TITLE: Home medical system and medical apparatus for use therewith

Detailed Description Text (4):

Referring now to FIG. 3, the medical terminal equipment 1 is removably mounted on the user side communication apparatus 2, and if an operation lever 20 mounted on the user side communication apparatus 2 is tilted down and the medical terminal equipment 1 is pulled forwardly, then a connecting terminal 21 is removed from a connector 22 so that the medical terminal equipment 1 can thereafter be carried freely. It is to be noted that, in order to connect the thus removed medical terminal equipment 1 to the user side communication apparatus 2, the connecting terminal 21 is put to the connector 22 while the operation lever 20 is in the tilted down condition, and then the operation lever 20 is tilted up, thereby completing the connection of the medical terminal equipment 1 to the user side communication apparatus 2. Naturally, the present invention is not limited to the present embodiment with regard to the construction described just above. A battery power source is provided in the medical terminal equipment 1 as hereinafter described so that a measurement of the blood pressure and so forth and inputting of other data and so forth can be performed at a location remote from the user side communication apparatus 2.

Detailed Description Text (30):

Minimum necessary questions for diagnosis inquiry are stored in advance in the host computer 5 and the medical terminal equipment 1, and consecutive numbers are applied in advance to the questions for diagnosis inquiry. On the medical institution side, a doctor will input the consecutive number or numbers of a question or questions for diagnosis inquiry to be asked to the user to the host computer 5, and the thus inputted number or numbers are stored into the host computer 5. After the inputting is completed, the host computer 5 transmits the inputted consecutive number or numbers of the questions for diagnosis inquiry to the medical apparatus 8 on the user side by way of the medical institution side communication apparatus 3. The medical apparatus 8 thus effects diagnosis inquiry of the received diagnosis inquiry question number or numbers to the user and transmits the result of the inquiry back to the host computer 5 by way of the user side communication apparatus 2. Since the diagnosis inquiry question number or numbers received by the medical apparatus 8 are stored in the memory 33 of the medical apparatus 8, the transmission from the host computer 5 must be performed only once. When it is desired to change the questions for diagnosis inquiry to the user, only the diagnosis inquiry question number or numbers stored in the host computer 5 should be changed. The host computer 5 transmits the thus changed diagnosis inquiry question number or numbers to the medical apparatus 8 of the user side by way of the medical institution side communication apparatus 3. Since the questions for diagnosis inquiry can be designated for each user, diagnosis inquiry effective for the disease or the condition of a particular user can be performed. The operation is performed in the following manner.

Detailed Description Text (35):

Subsequently, inputting of data of the body temperature proceeds in the following

manner.

Detailed Description Text (40):

(5) The medical terminal equipment 1 gives a question "do you want to store the data?" by way of the screen display and sound. If the operation button 16 for "No" is depressed, the control sequence returns to the step (1) without storing the body temperature data. On the contrary, if the operation button 15 for "Yes", then the body temperature data is stored into the memory 33, thereby completing the body temperature data inputting procedure.

Detailed Description Text (41):

An inputting procedure for data of the weight proceeds in the following manner.

Detailed Description Text (46):

(5) The medical terminal equipment 1 gives a question "do you want to store the data?" by way of the screen display and sound. If the operation button 16 for "No" is depressed, the control sequence returns to the step (1) without storing the weight value. On the contrary, if the operation button 15 for "Yes" is depressed, then the weight value is stored into the memory 33, thereby completing the weight data inputting procedure.

Detailed Description Text (47):

The medical apparatus 8 according to the present invention allows storage of data of a plurality of users into the memory 33 and also has a function of outputting, by accessing to it from the medical institution side, the stored data from the memory 33 making use of a CATV line, a telephone line or the like. When the medical apparatus 8 is to be used commonly by a plurality of users, identification information of entry numbers of the users must be <u>inputted</u> in advance. The <u>inputting</u> operation may involve displaying the identification information on the liquid crystal display unit 14 of the display means and depression of the operation button or buttons 15 or/and 16 for "Yes" and "No". The transmission of the data may be performed by accessing of the user side to the medical institution side or may be performed by accessing of the medical institution side so that the medical institution receives data stored in the user side communication apparatus 2. The number of times of measurement and <u>inputting</u> of various data within a day can be selected arbitrarily in accordance with an instruction of the medical institution.

CLAIMS:

1. A medical system for measuring a user's blood pressure, pulse and electrocardiogram at home, and for communication between the user and a medical institution; the system comprising:

a home medical terminal for use by the user, the terminal including an arm band for measuring the user's blood pressure and pulse; a pair of measuring electrodes for measuring the user's electrocardiogram; explaining means for questioning a user with on-line and with preselected questions, and for presenting and explaining a measurement procedure to the user for use by the user to take measurements using said arm band and said measuring electrodes; a plurality of operation buttons operable by the user and operatively connected to the explaining means for inputting responses to the questions and for interacting with the explaining means to proceed through a measurement procedure; the home medical terminal also including display means for displaying a measurement by said arm band and a measurement by said electrodes, said display means also being operatively connected to said explaining means for displaying the questions and for presenting and explaining the measurement procedures; the home medical terminal further included a memory for storing the results of the measurements, and the answers to the questions; and a home central processing unit operatively connected to said display means, to said operation buttons, to said arm band, to said electrodes, to said explaining means and to said memory, for operating said arm band and electrodes to

make the measurements, to operate said explaining means to question the user and present and explain measurement procedures to the user, and to receive signals from the operation buttons and to drive the display means and memory;

home communication means operatively connected to said home central processing unit for transmitting and receiving signals including the on-line questions for the user, responses to and from the user to those questions, and the measurements taken by the user;

institute communication means;

- a communication line operatively connected between the home communication means and the institute communication means for transmitting and receiving signals therebetween;
- a host computer operatively connected to the institution communication means and at the medical institution;

question means operatively connected to the host computer for initiating on-line and preselected questions for diagnosis inquiry to the host computer which are transmitted between the home and institution communication means over the communication line to the explaining means for providing questioning of the user; and

attachment means operatively connected to the host computer for storing and displaying information from the host computer, received through the home and institution communication means over the communication line, and including the results of the measurements taken by the user and stored in the memory.

4. A medical system according to claim 1, including <u>input</u> means operably connected to said home central processing unit for use by the user to <u>input</u> body temperature and a weight of the user as part of the answer to the questions posed to the user by the explaining means.